

IN THE CLAIMS:

Please cancel claims 1-5, without prejudice or disclaimer.

Please add new claims 6-9 as follows:

6. (New) A fluid administration system for the operation of a cylinder and piston assembly for actuating mechanisms, the cylinder and piston assembly being of the type including, in combination: a support frame; a centering ring mounted on the support frame; a cylinder centrally mounted on the centering ring, including a cylinder cap, an internal chamber, and a piston into the internal chamber, having piston rods to be coupled to the actuating mechanisms; a valve housing including a first aperture, a second aperture, a third aperture, a fourth aperture, a fifth aperture, and operating valve means in the valve housing, having a first connection, a second connection, a third connection, and a fourth connection, for coinciding with the apertures of the valve housing, for controlling the feeding and discharging of operating fluid to the cylinder and piston assembly; the fluid administration system comprising:

a network of fluid feeding and discharging passages provided with the cylinder, the centering ring and the support frame, with the network being integral to the cylinder cap of the cylinder and piston assembly, the network providing operating fluid to the cylinder and piston assembly for ascending and descending runs of the piston and to allow the discharging of the operating fluid from the cylinder and piston assembly;

a passage network provided at the cylinder cap, connected to the network of fluid feeding and discharging passages;

speed-control valve means located in each passage of the passage network, to control the speed of the discharging of the operating fluid from the cylinder and piston assembly, and to control the speed of the ascending and descending runs of the piston of the cylinder and piston assembly; and

a reel valve placed into the valve housing and having positions located adjacent to an upper fluid-feed aperture and a lower fluid-feed aperture respectively, the reel valve having at least one connection to being operated by a pilot fluid feed through a piloting conduit, connected to a lower end of the valve housing, to the upper fluid-feed aperture.

7. (New) The fluid administration system according to claim 6, wherein the network of fluid feeding and discharging passages includes:

a first fluid feeding conduit for feeding operating fluid to the cylinder and piston assembly, having:

a first end connected to a fluid source for feeding the operating fluid; and

a second end;

a first fluid feeding passage passing through the centering ring and the cylinder, having:

a first end connected to the second end of the first fluid feeding conduit; and

a second end;

a second fluid passage passing through the cylinder, the centering ring and the support frame, having:

a first end; and

a second end;

a second fluid feeding conduit having:

a first end connected to the second end of the second fluid passage;

and

a second end, connected to a lower part of the cylinder in communication with the internal chamber of the cylinder, for feeding the operating fluid to the lower part of the chamber of the cylinder, under the piston, when the reel valve is positioned at the upper fluid-feed aperture, for an ascending run of the piston, and for discharging of the operating fluid from the lower part of the chamber of the cylinder, when the reel valve is positioned at the lower fluid-feed aperture, for a descending run of the piston;

a piloting fluid passage passing through the support frame, the centering ring and the cylinder, for feeding a piloting fluid to the valve housing, in order to connect the operating valve means to an upper aperture;

a third fluid passage at the cylinder having:

a first end; and

a second end connected to and in communication with an upper part of the cylinder; and

fourth and fifth passages, both passing through the cylinder, the centering ring and the support frame, for passing and discharging of the operating fluid from the cylinder.

8. (New) The fluid administration system according to claim 7, wherein the second fluid passage is integrated to a wall of the cylinder as a passage having the first end of the second fluid passage connected to a second aperture of the valve housing, and having the second end of the second fluid passage connected to a lower part of the cylinder in communication with the internal passage of the cylinder.

9. (New) The fluid administration system according to claim 7, wherein the passage network of the cylinder cap includes:

the first fluid feed conduit having:

the first end connected to the first fluid feeding passage passing through the centering ring and the cylinder, for feeding operating fluid to the chamber of the cylinder; and

the second end leading to the third aperture of the valve housing, coinciding with the third connection of the reel valve into the valve housing;

the second fluid feeding passage having:

the first end leading to the second aperture of the valve housing coinciding with the first connection of the reel valve of the valve housing; and

the second end connected to the second fluid feeding passage passing through the cylinder, the centering ring, and the support frame, for feeding fluid through the second fluid feed conduit to the lower part of the cylinder in communication with the chamber of the cylinder under the piston, for the ascending run of the piston;

the third fluid feeding passage having:

the first end leading to the fourth aperture of the valve housing;

and

the second end connected to the third fluid feeding passage of the fluid feeding and discharging passages, leading to the upper part of the cylinder in communication with the chamber of the cylinder over the piston, and including:

a first branch having:

a first end connected to the third fluid feeding passage by means of a check valve; and

a second end leading to the upper part of the chamber of the cylinder; and

a second branch including a first needle valve, and having:

a first end connected to the third fluid feeding passage; and

a second end leading to the upper part of the chamber of the cylinder, for a controlled speed discharging of the operating fluid over the piston, at the ascending run of the piston, when the reel valve is at the upper operating aperture, and for feeding the operating fluid when the reel valve is at the lower operating aperture, for the descending run of the piston;

the fourth fluid feeding passage having:

a first end leading to the fifth aperture of the valve housing;

an intermediate portion including a second needle valve, introduced through an opened top of the cylinder; and

a second end connected to the first fluid feeding passage of the network of fluid feeding and discharging passages passing through the cylinder, the centering ring and the support frame, for a controlled speed discharging of the operating fluid from the upper part of the chamber of the cylinder, over the piston, when the reel valve is at the upper operating aperture; and

the fifth passage having:

a first end leading to the first aperture of the valve housing;

an intermediate portion including a third needle valve introduced through an opened top of the cylinder; and

a second end connected to the second fluid feeding passage of the fluid feeding and discharging network of passages passing through the cylinder, the centering ring and the mechanism support frame, for a controlled speed discharging of the operating fluid from the lower part the chamber of the cylinder under the piston, when the reel valve is at the lower operating aperture.